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10/568,383	03/16/2006	Anette Bergstrom	0904-009	1019
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EXAMINER				
CHEW, BRIAN				
ART UNIT		PAPER NUMBER		
2195				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

tammy@ppglaw.com

### Office Action Summary

**Application No.**

10/568,383

**Applicant(s)**

BERGSTROM, ANETTE

**Examiner**

BRIAN CHEW

**Art Unit**

2195

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 April 2006.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-10 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 14 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO/SI/08)  
Paper No(s)/Mail Date 3/16/2006  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Interval Patent Application  
6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. Claims 1-10 are presented for examination.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The language in the following claims is not clearly understood:

- i. As per claim 1: Line 4: It is uncertain what is meant by "input made by the user" (i.e. Any input made to any program? Input to the specific monitored computer program?). Lines 5-7: It is uncertain how "a set of operations defined in advance" corresponds to "any predefined operation" (i.e. Are they referring to the same set of operations?). Lines 9-10: It is uncertain what is meant by "operations that in some way can affect the monitored program" (i.e. In what way? Does this refer to the "specific" monitored program?). Lines 10-12: It is uncertain what is meant by "which set has been created by logging specific messages being generated by the computer program in response to inputs affecting the program" (i.e. Is this referring to "the set of operations defined in advance? Is this essentially saying that the set is predefined by logging specific

messages that are generated by the program in response to inputs affecting the program? Where does it say that the inputs affect the program? When does this occur? While tracking? Before?). Lines 15-16: There is insufficient antecedent basis for the term “the time period of using the monitored program” in the claim; For the purposes of examination, this will be construed as “a time period of using the monitored program”. Lines 16: It is uncertain what is meant by “an activity list of performed operations” (i.e. Does this relate to operations registered as executed activities?). Lines 16-18: It is uncertain what is meant by “activity list... that can be retrieved afterwards” (i.e. Is this feature optional?).

ii. As per claim 4: Lines 1-3: It is uncertain what is meant by “wherein said set includes operations that are generic independent of which program is used, or specific to the program” (i.e. Said set includes generic operations or operations specific to the program? Both?).

iii. As per claim 5: Lines 2-3: It is uncertain what is meant by “wherein said set of predefined operations has been created by executing a basic set of operations that a use can be expected to perform in the program” (i.e. Does this correspond to the “logging specific messages being generated by the computer program in response to inputs affecting the program” from claim 1? Are inputs corresponding to the basic set of operations entered in order to build up the

operation database? Otherwise, what executes the basic set of operations?  
How does it know which ones to execute?).

iv. As per claim 6: Line 2: It is uncertain what is meant by "the registration of an executed operation" (i.e. is this referring to "a performed operation"? "An executed activity"? "An executed operation"?).

v. As per claim 7: Lines 3-4: It is uncertain what is meant by "executed operations" (i.e. Is this referring to "performed operation"? "Executed activity?"); For the purposes of examination, this will be construed as "executed activities".

vi. As per claim 9: Lines 2-3: It is uncertain what is meant by "wherein said presentation rules comprises a filter function such that only certain types of operations are registered" (i.e. How can the presentation rules accomplish this when they are only applied to "executed operations"?)

vii. As per claim 10: Line 3: It is uncertain what is meant by "inputs made by the user" (i.e. Any input made to any program? Input to the specific monitored computer program?). Lines 3-4: It is uncertain how "a set of operations defined in advance" corresponds to "any predefined operation" (i.e. Are they referring to the same set of operations?). Lines 7-8: It is uncertain what is meant by "operations that in some way can affect the monitored program" (i.e. In what

way? Does this refer to the "specific" monitored program?). Lines 12-13: It is uncertain what is meant by "an activity list of performed operations" (i.e. Does this relate to operations registered as executed activities?). Lines 14-15: There is insufficient antecedent basis for the term "the time period of using the monitored program" in the claim; For the purposes of examination, this will be construed as "a time period of using the monitored program". Line 15: It is uncertain what is meant by "such that said list can be retrieved after the recording session" (i.e. Is this feature optional?).

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claim 10 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.
4. As per claim 10, it recites an "arrangement"; however, it appears that the arrangement would reasonably be interpreted by one of ordinary skill in the art as software, per se, failing to be tangibly embodied or include any recited hardware as part of the arrangement. Software alone is directed to a non-statutory subject matter. Applicant is advised to amend the claims to include hardware (i.e. processor and memory) to overcome the §101 rejection.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith *et al.* (US 7,587,484; hereinafter Smith) in view of Pagan (US 2004/0263480).
6. As per claim 1, Smith teaches a method of tracking individual operations executed by a user in a specific monitored computer program during use thereof (*"tracking client software use... specifically user interaction with a client-installed software application", Smith, column 1, lines 57-59*), comprising the steps of:
  - a) detecting at least one input made by the user (*"SetWindowsHookEx' which allows the logging code to monitor all messages or 'events' that occur when a user interacts with a program... when a mouse button is clicked on a control in the application user interface, the operating system sends an event message", Smith, column 6, lines 14-19*);
  - b) comparing the detected input with a set of operations defined in advance (*"the logging code is notified with a hook. The logging code 405 then is able to cross-*

*reference the hook, using the installed DLLs, with a more specific action executed by the user", Smith, column 5, lines 63-67); and*

- c) registering an operation corresponding to the input as an executed activity, if the input matches any predefined operation as the comparing step b) is performed (*"The logging code... writes out records into a logging file 215 when the logging code recognizes actions by the user", Smith, column 5, lines 21-24);*
- each predefined operation corresponding to one or more specific messages generated by the program (*"'SetWindowsHookEx' which allows the logging code to monitor all messages or 'events' that occur when a user interacts with a program... when a mouse button is clicked on a control in the application user interface, the operating system sends an event message", Smith, column 6, lines 14-19; "the logging code is notified with a hook. The logging code 405 then is able to cross-reference the hook, using the installed DLLs, with a more specific action executed by the user", Smith, column 5, lines 63-67);*
- wherein steps a) - c) are repeated for a number of inputs and corresponding operations as executed in a recording session during the time period of using the monitored computer program, such that an activity list of performed operations is created for the recording session that can be retrieved afterwards in order to track individual operations in the monitored computer program (*Smith, figure 4, step 410; "logging within the application program, the user... to have their actions monitored", Smith, column 2, lines 56-58; "each logged user interaction... recorded in a record in the logging file 215", Smith, column 6, lines 42-46; "analyzing the logging files at the*



*remote analysis system... logging files are downloaded from the HTTP server 220", Smith, column 7, lines 10-14; "XML data is parsed and uploaded to the SQL data warehouse 240", Smith, column 7, lines 20-21)*

but is silent on wherein the set of operations defined in advance are operations that in some way can affect the monitored computer program, which set has been created by logging specific messages being generated by the computer program in response to inputs affecting the program.

Pagan teaches wherein the set of operations defined in advance are operations that in some way can affect the monitored computer program (*"buttons, menus, or other portions of the GUI 113 that are used in a particular context to access certain functions... buttons for bold, underline, italics, and text justification... configure the hot keys for the corresponding functions", Pagan, paragraph 26, lines 4-12).*

The combination of Smith in view of Pagan teaches which set has been created by logging specific messages being generated by the computer program in response to inputs affecting the program (*"SetWindowsHookEx' which allows the logging code to monitor all messages or 'events' that occur when a user interacts with a program", Smith, column 6, lines 14-16; "the user holds the <ALT> key... while depressing some key combination. The <ALT> key... in combination with the key combination is the hot key mapped to the function corresponding to the item selected in step 232", Pagan, paragraph 33, lines 4-9; the program only knows which input is pressed by the message*

*hooks it receives, and it maps a combination of messages corresponding to the keys pressed to a particular function).*

One of ordinary skill in the art at the time the invention was made would have been motivated to modify Smith with the teachings of Pagan to select "the key combination that is to correspond to... the function" (*Pagan, paragraph 5, lines 12-13*) and to allow "the user to configure applications in a manner that is most intuitive to the user" (*Pagan, paragraph 4, lines 6-8*).

7. As per claim 2, Smith in view of Pagan teaches the method of claim 1, wherein an input is detected in step a) by monitoring a corresponding message being generated by the computer program in response to the input ("*SetWindowsHookEx' which allows the logging code to monitor all messages or 'events' that occur when a user interacts with a program... when a mouse button is clicked on a control in the application user interface, the operating system sends an event message*", Smith, column 6, lines 14-19).

8. As per claim 3, Smith in view of Pagan teaches the method of claim 1, wherein said set of predefined operations has been stored in an operation database ("*The actual code that performs the profiling of user actions is contained in the installed DLLs*", Smith, column 5, lines 30-32; "*the logging code is notified with a hook. The logging code 405 then is able to cross-reference the hook, using the installed DLLs, with a more specific action executed by the user*", Smith, column 5, lines 63-67).

9. As per claim 4, Smith in view of Pagan teaches the method of claim 3, wherein said set includes operations that are generic independent of which program is used, or specific to the program (*"buttons, menus, or other portions of the GUI 113 that are used in a particular context to access certain functions... buttons for bold, underline, italics, and text justification... configure the hot keys for the corresponding functions"*, Pagan, paragraph 26, lines 4-12).

10. As per claim 5, Smith in view of Pagan teaches the method of claim 3, wherein said set of predefined operations has been created by executing a basic set of operations that a user can be expected to perform in the program, in order to build up said database (*"buttons, menus, or other portions of the GUI 113 that are used in a particular context to access certain functions... buttons for bold, underline, italics, and text justification... configure the hot keys for the corresponding functions"*, Pagan, paragraph 26, lines 4-12; *"the user holds the <ALT> key... while depressing some key combination. The <ALT> key... in combination with the key combination is the hot key mapped to the function corresponding to the item selected in step 232"*, Pagan, paragraph 33, lines 4-9; *the user executes a basic set of operations, such as bold or underline, by inputting the desired hot key configuration, which maps the input keys (messages) to the operation in order to configure the functions*).

11. As per claim 6, Smith in view of Pagan teaches the method of claim 1, wherein the registration of an executed operation in step c) includes retrieving a predefined term for the operation, which term is stored in said activity list (*"after the data is collected, it is compared to the information in the UI mapping files and the names of the UI elements are fully expanded once located"*, Smith, column 7 line 67 - column 8 line 2; *"logging files data is converted to XML"*, Smith, column 7, line 56; *"XML data is parsed and uploaded to the SQL data warehouse 240"*, Smith, column 7, lines 20-21).

12. As per claim 7, Smith in view of Pagan teaches the method of claim 1, wherein predefined presentation rules are applied to executed operations before storing them in said activity list, the presentation rules determining how the information on executed operations is to be processed for later presentation (*"after the data is collected, it is compared to the information in the UI mapping files and the names of the UI elements are fully expanded once located"*, Smith, column 7 line 67 - column 8 line 2; *"logging files data is converted to XML"*, Smith, column 7, line 56; *"XML data is parsed and uploaded to the SQL data warehouse 240"*, Smith, column 7, lines 20-21) (*"The logging code 405 then is able to cross-reference the hook, using the installed DLLs, with a more specific action executed by the user"*, Smith, column 5, lines 63-67; *"The logging code... writes out records into a logging file 215 when the logging code recognizes actions by the user"*, Smith, column 5, lines 21-24).

13. As per claim 8, Smith in view of Pagan teaches the method of claim 7, wherein said presentation rules have been stored in a rule database (*"The mapping files comprise information that 'maps' the user interface of the application program", Smith, column 8, lines 16-17*).

14. As per claim 9, Smith in view of Pagan teaches the method of claim 7, wherein said presentation rules comprises a filter function such that only certain types of operations are registered, while other ones are ignored (*"The logging code 405 then is able to cross-reference the hook, using the installed DLLs, with a more specific action executed by the user", Smith, column 5, lines 63-67; "The hook causes the event message to be routed first to the logging code... determine if it affects the application program user interface in a way that the logging code cares about", Smith, column 6, lines 20-23; "The logging code... writes out records into a logging file 215 when the logging code recognizes actions by the user", Smith, column 5, lines 21-24*).

15. As per claim 10, Smith in view of Pagan teaches an arrangement for tracking individual operations executed by a user in a specific monitored computer program during use thereof (*"tracking client software use... specifically user interaction with a client-installed software application", Smith, column 1, lines 57-59*), comprising

- means for detecting inputs made by a user and for comparing them with a set of operations defined in advance (*"SetWindowsHookEx' which allows the logging code to monitor all messages or 'events' that occur when a user interacts with a*

*program... when a mouse button is clicked on a control in the application user interface, the operating system sends an event message”, Smith, column 6, lines 14-19; “the logging code is notified with a hook. The logging code 405 then is able to cross-reference the hook, using the installed DLLs, with a more specific action executed by the user”, Smith, column 5, lines 63-67), and*

- means for registering operations as executed activities during a recording session for the inputs matching any predefined operation (*“The logging code... writes out records into a logging file 215 when the logging code recognizes actions by the user”, Smith, column 5, lines 21-24), comprising:*
- means for creating the set of operations defined in advance, which in some way can affect the monitored computer program, by logging specific messages being generated by the computer program in response to inputs affecting the computer program (*“buttons, menus, or other portions of the GUI 113 that are used in a particular context to access certain functions... buttons for bold, underline, italics, and text justification... configure the hot keys for the corresponding functions”, Pagan, paragraph 26, lines 4-12; “SetWindowsHookEx’ which allows the logging code to monitor all messages or ‘events’ that occur when a user interacts with a program; “the user holds the <ALT> key... while depressing some key combination. The <ALT> key... in combination with the key combination is the hot key mapped to the function corresponding to the item selected in step 232”, Pagan, paragraph 33, lines 4-9; the program only knows which input is pressed by the message hooks it*

*receives, and it maps a combination of messages corresponding to the keys pressed to a particular function),*

- *where each predefined operations corresponds to one or more specific messages generated by the program ("SetWindowsHookEx' which allows the logging code to monitor all messages or 'events' that occur when a user interacts with a program... when a mouse button is clicked on a control in the application user interface, the operating system sends an event message", Smith, column 6, lines 14-19; "the logging code is notified with a hook. The logging code 405 then is able to cross-reference the hook, using the installed DLLs, with a more specific action executed by the user", Smith, column 5, lines 63-67), and*
- *means for creating an activity list for a recording session with performed operations, by the detection of a number of inputs and the registration of corresponding operations as executed during the time period of using the monitored computer program, such that said list can be retrieved after the recording session in order to track individual operations in the monitored computer program (Smith, figure 4, step 410; "logging within the application program, the user... to have their actions monitored", Smith, column 2, lines 56-58; "each logged user interaction... recorded in a record in the logging file 215", Smith, column 6, lines 42-46; "analyzing the logging files at the remote analysis system... logging files are downloaded from the HTTP server 220", Smith, column 7, lines 10-14).*

***Conclusion***

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Coffee *et al.* (US 6,115,680) teaches collecting, logging, and analyzing preselected operations in a personal computer. Potts *et al.* (US 5,432,940) teaches trapping events specific to applications of interest and translating them into abstract messages conveying information about a particular event.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRIAN CHEW whose telephone number is (571)270-5571. The examiner can normally be reached on Monday-Thursday, 8:00AM-5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571)272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Meng-Ai An/  
Supervisory Patent Examiner, Art Unit 2195

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